ABSTRACT OF THE DISCLOSURE

A method for modification of glass-based microchannels, which uses liquid organic-based solution containing siloxane for the modification of microchannels on the glass substrate, such as quartz, boron glass, sodium glass, and the like, to form a solid film to isolate the glass surface of the microchannels from the environment. Therefore, the present invention can be applied for electrophoresis experiment, so that the operation causes no electrical-double-layer effects, and further eliminates the occurrence of electro-osmosis flow, thus the separation efficiency of electrophoresis chips is improved.